GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2025-2026

Microbiology for Resource Scientists: Lab Course (I002847)

Course size *(nominal values; actual values may depend on programme)*

Credits 4.0 **Study time 120 h**

Course offerings in academic year 2026-2027

A (Year)	English	Gent

Lecturers in academic year 2026-2027

Hedrich, Sabrina	FREIBE01	lecturer-in-charge
Kaschabek, Stefan	FREIBE01	co-lecturer

Offered in the following programmes in 2026-2027	**crdts**	**offering**
International Master of Science in Sustainable and Innovative Natural Resource Management	4	A

Teaching languages

English

Keywords

microbological methods, sterile, cultivation, growth, substrates

Position of the course

Contents

Working sterile; preparation of minimal and complex media; pouring of plates; enrichment, isolation and identification of microorganisms. Experiments on various metabolic properties of microorganisms (e.g. leaching of sulfides). Turbidity measurement, HPLC analyses, colorimetric determination of ions in solution.

Initial competences

Mandatory: Microbiology for Resource Scientists: Lecture, 2018-07-03 oder (or)" Grundlagen der Biochemie und Mikrobiologie" oder (or) equivalent
Recommendations: Knowledge in general, inorganic and organic chemistry.

Final competences

1 The students will have obtained experience in basic microbiological methods.
2 They are able to prepare sterile media, to cultivate microorganisms and to enrich as well as isolate pure cultures.
3 They are able to follow the growth of cultures and to analyse substrate conversion and product formation during cultivation.

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, Practical

Extra information on the teaching methods

S1 (WS): Practical Application (5 SWS)

Study material

None

References

Strete: Mikrobiologisches Grundpraktikum Steinbüchel & Oppermann-Sanio:
Mikrobiologisches Praktikum

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Assignment

Examination methods in case of periodic assessment during the second examination period

Assignment

Examination methods in case of permanent assessment

Participation, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible

Extra information on the examination methods

For the award of credit points it is necessary to pass the module exam.
The module exam contains:
PVL: Online test on the description of the experiments
AP: Lab reports
PVL have to be satisfied before the examination.

Calculation of the examination mark